

APPENDIX I:
SUPPORTING DATA FOR LOCAL FIRE AND EMS ¾
INTEROPERABILITY SHORTFALLS (SECTION 5)

Table I-1: Obstacles to Interoperability

Obstacle Rating (1 = Not a Problem to 5 = Major Problem)	Different Bands		Human and Institutional Limitations		Different Communications Modes (analog vs. digital)		Different System Types (conventional vs. trunked)		Different Coverage Areas	
	n	%	n	%	n	%	n	%	n	%
1	148	15.5%	135	14.7%	321	34.9%	269	29.5%	174	18.8%
2	122	12.8%	200	21.7%	160	17.4%	138	15.1%	196	21.2%
3	198	20.8%	369	40.1%	214	23.2%	202	22.1%	286	30.9%
4	167	17.5%	145	15.7%	115	12.5%	131	14.3%	162	17.5%
5	317	33.3%	72	7.8%	111	12.1%	173	18.9%	108	11.7%

Obstacle Rating (1 = Not a Problem to 5 = Major Problem)	Limitations of Commercial Services		Lack of Adequate Planning		Limitations in Funding		Political or Turf Issues	
	n	%	n	%	n	%	n	%
1	324	36.4%	137	14.7%	74	7.9%	184	19.7%
2	191	21.5%	179	19.2%	74	7.9%	170	18.2%
3	215	24.2%	285	30.6%	152	16.2%	211	22.6%
4	96	10.8%	197	21.1%	231	24.7%	189	20.2%
5	63	7.1%	134	14.4%	406	43.3%	181	19.4%

Table I-2: Obstacles to Interoperability by Agency Size and Type

		Different Bands										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	49	26.1%	28	14.9%	42	22.3%	20	10.6%	49	26.1%	2.96
	25-49	40	19.7%	28	13.8%	44	21.7%	32	15.8%	59	29.1%	3.21
	50-99	19	14.3%	19	14.3%	30	22.6%	29	21.8%	36	27.1%	3.33
	100-249	32	10.7%	35	11.7%	58	19.5%	58	19.5%	115	38.6%	3.63
	250+	8	6.2%	12	9.2%	24	18.5%	28	21.5%	58	44.6%	3.39
Agency Type	Fire Departments	119	15.5%	101	13.2%	156	20.3%	137	17.9%	254	33.1%	3.40
	EMS Departments	22	15.6%	15	10.6%	33	23.4%	23	16.3%	48	34.0%	3.43
	Special	7	15.9%	6	13.6%	9	20.5%	7	15.9%	15	34.1%	3.39

		Human and Institutional Limitations										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	33	18.1%	42	23.1%	73	40.1%	23	12.6%	11	6.0%	2.65
	25-49	35	17.8%	36	18.3%	75	38.1%	35	17.8%	16	8.1%	2.30
	50-99	14	11.2%	29	23.2%	43	34.4%	29	23.2%	10	8.0%	2.94
	100-249	39	13.4%	67	23.0%	132	45.4%	34	11.7%	19	6.5%	2.75
	250+	14	11.1%	26	20.6%	46	36.5%	24	19.0%	16	12.7%	3.02
Agency Type	Fire Departments	113	15.4%	159	21.6%	295	40.1%	112	15.2%	57	7.7%	2.78
	EMS Departments	17	12.1%	31	22.0%	56	39.7%	26	18.4%	11	7.8%	2.38
	Special	5	11.4%	10	22.7%	18	40.9%	7	15.9%	4	9.1%	2.39

Table I-2: Obstacles to Interoperability by Agency Size and Type (continued)

		Different Communications Modes (Analog vs. Digital)										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	61	34.1%	29	16.2%	42	23.5%	23	12.8%	24	13.4%	2.55
	25-49	70	35.5%	31	15.7%	50	25.4%	22	11.2%	24	12.2%	2.49
	50-99	41	31.8%	22	17.1%	28	21.7%	23	17.8%	15	11.6%	2.60
	100-249	103	35.6%	53	18.3%	71	24.6%	30	10.4%	32	11.1%	2.43
	250+	46	36.2%	25	19.7%	23	18.1%	17	13.4%	16	12.6%	2.46
Agency Type	Fire Departments	253	34.2%	129	17.5%	172	23.3%	95	12.9%	90	12.2%	2.51
	EMS Departments	54	38.8%	23	16.5%	31	22.3%	17	12.2%	14	10.1%	2.38
	Special	14	32.6%	8	18.6%	11	25.6%	3	7.0%	7	16.3%	2.56

		Different System Architecture Types (Conventional vs. Trunked)										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	61	34.7%	34	19.3%	34	19.3%	22	12.5%	25	14.2%	2.52
	25-49	71	36.6%	18	9.3%	43	22.2%	25	12.9%	37	19.1%	2.69
	50-99	34	26.8%	18	14.2%	28	22.0%	19	15.0%	28	22.0%	2.91
	100-249	75	26.0%	51	17.7%	62	21.5%	46	16.0%	54	18.8%	2.34
	250+	28	21.9%	17	13.3%	35	27.3%	19	14.8%	29	22.7%	3.03
Agency Type	Fire Departments	217	29.7%	110	15.0%	162	22.2%	107	14.6%	135	18.5%	2.77
	EMS Departments	40	28.8%	24	17.3%	28	20.1%	18	12.9%	29	20.9%	2.30
	Special	12	27.9%	4	9.3%	12	27.9%	6	14.0%	9	20.9%	2.91

		Different Coverage Areas										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	40	21.9%	35	19.1%	54	29.5%	30	16.4%	24	13.1%	2.30
	25-49	47	24.0%	46	23.5%	54	27.6%	29	14.8%	20	10.2%	2.64
	50-99	23	18.0%	24	18.8%	44	34.4%	24	18.8%	13	10.2%	2.34
	100-249	47	16.2%	67	23.0%	97	33.3%	48	16.5%	32	11.0%	2.33
	250+	17	13.3%	24	18.8%	37	28.9%	31	24.2%	19	14.8%	3.09
Agency Type	Fire Departments	137	18.5%	162	21.8%	232	31.3%	126	17.0%	85	11.5%	2.31
	EMS Departments	25	17.7%	30	21.3%	40	28.4%	28	19.9%	18	12.8%	2.39
	Special	12	27.9%	4	9.3%	14	32.6%	8	18.6%	5	11.6%	2.77

		Limitations of Commerical Services										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	52	29.5%	32	18.2%	52	29.5%	20	11.4%	20	11.4%	2.57
	25-49	65	33.2%	42	21.4%	50	25.5%	20	10.2%	19	9.7%	2.42
	50-99	41	34.7%	23	19.5%	27	22.9%	21	17.8%	6	5.1%	2.39
	100-249	113	40.1%	71	25.2%	59	20.9%	26	9.2%	13	4.6%	2.13
	250+	53	45.3%	23	19.7%	27	23.1%	9	7.7%	5	4.3%	2.06
Agency Type	Fire Departments	253	35.6%	157	22.1%	176	24.8%	78	11.0%	46	6.5%	2.31
	EMS Departments	55	40.1%	26	19.0%	26	19.0%	17	12.4%	13	9.5%	2.32
	Special	16	38.1%	8	19.0%	13	31.0%	1	2.4%	4	9.5%	2.26

Table I-2: Obstacles to Interoperability by Agency Size and Type (continued)

		Lack of Adequate Planning										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	30	16.0%	34	18.2%	60	32.1%	38	20.3%	25	13.4%	2.97
	25-49	30	15.2%	40	20.2%	59	29.8%	37	18.7%	32	16.2%	3.01
	50-99	19	14.6%	27	20.8%	35	26.9%	27	20.8%	22	16.9%	3.05
	100-249	41	14.1%	58	19.9%	85	29.2%	65	22.3%	42	14.4%	3.03
	250+	17	13.5%	20	15.9%	46	36.5%	30	23.8%	13	10.3%	3.02
Agency Type	Fire Departments	111	14.8%	153	20.4%	234	31.2%	161	21.5%	91	12.1%	2.96
	EMS Departments	17	12.2%	16	11.5%	43	30.9%	31	22.3%	32	23.0%	3.32
	Special	9	20.9%	10	23.3%	8	18.6%	5	11.6%	11	25.6%	2.98

		Limitations in Funding										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	17	9.1%	15	8.1%	25	13.4%	43	23.1%	86	46.2%	3.39
	25-49	17	8.5%	12	6.0%	30	15.1%	49	24.6%	91	45.7%	3.93
	50-99	10	7.8%	10	7.8%	27	20.9%	37	28.7%	45	34.9%	3.75
	100-249	24	8.1%	30	10.1%	50	16.9%	67	22.6%	125	42.2%	3.31
	250+	6	4.7%	7	5.5%	20	15.7%	35	27.6%	59	46.5%	4.06
Agency Type	Fire Departments	60	8.0%	60	8.0%	112	14.9%	196	26.0%	326	43.2%	3.39
	EMS Departments	9	6.4%	10	7.1%	30	21.4%	26	18.6%	65	46.4%	3.91
	Special	5	11.6%	4	9.3%	10	23.3%	9	20.9%	15	34.9%	3.58

		Political/Turf Issues										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	46	24.9%	40	21.6%	38	20.5%	29	15.7%	32	17.3%	2.79
	25-49	41	20.7%	39	19.7%	43	21.7%	36	18.2%	39	19.7%	2.96
	50-99	26	20.0%	24	18.5%	25	19.2%	33	25.4%	22	16.9%	3.01
	100-249	51	17.3%	52	17.7%	69	23.5%	67	22.8%	55	18.7%	3.08
	250+	20	15.6%	15	11.7%	36	28.1%	24	18.8%	33	25.8%	3.27
Agency Type	Fire Departments	151	20.1%	140	18.6%	170	22.6%	153	20.3%	138	18.4%	2.98
	EMS Departments	25	17.9%	20	14.3%	30	21.4%	31	22.1%	34	24.3%	3.21
	Special	8	18.6%	10	23.3%	11	25.6%	5	11.6%	9	20.9%	2.93

Table I-3: Type of Fire Department versus Limitations in Funding as an Obstacle to Interoperability

		Limitations in Funding										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Type of Fire Department	Volunteer	37	9.7%	30	7.9%	58	15.3%	88	23.2%	167	43.9%	3.34
	Career	13	5.4%	21	8.7%	41	16.9%	69	28.5%	98	40.5%	3.90
	Combination	10	7.6%	9	6.8%	13	9.8%	39	29.5%	61	46.2%	4.00

Table I-4: Limited Funding as a Severe Problem versus Limited Funding Not a Problem

Comparison of agencies that consider limited funding a severe problem (rating of 4 or 5) with agencies that do not see funding as a major problem (rating of 1 or 2): Independent t –test, 95 % confidence level			
	Limitations in Funding Not a Problem (1,2)	Limitations in Funding a Severe Problem (4,5)	Statistical Significance
Overall ability to handle interoperability situations (where 1 = poor to 5 = excellent)			
5 Years Ago	2.60 (146)	2.12 (633)	sd
Today	3.88 (147)	3.18 (634)	sd
5 Years From Now	4.18 (147)	3.54 (625)	sd
Ability of radio to handle three types of interoperability situations (where 1 = poor to 5 = excellent)			
Day-to-day	4.16 (141)	3.68 (627)	sd
Mutual aid	3.78 (139)	3.11 (625)	sd
Task force	3.06 (130)	2.23 (578)	sd
Ability of agency to establish links with different levels of public safety/service organizations (where 1 = poor to 5 = excellent)			
Local	4.44 (147)	4.00 (633)	sd
State	3.06 (135)	2.59 (602)	sd
Federal	2.10 (127)	1.67 (584)	sd
Problems with land mobile radio system (where 1 = not a problem to 5 = major problem)			
Not enough channels	2.26 (145)	2.76 (634)	sd
Not enough talk groups	1.76 (132)	2.18 (576)	sd
Dead spots	2.88 (143)	3.41 (632)	sd
Fading	2.07 (140)	2.61 (615)	sd
Frequency Interference	2.45 (144)	2.86 (625)	sd
Static	1.97 (142)	2.28 (625)	sd
Battery Problems	1.96 (141)	2.37 (622)	sd
Not enough equipment	1.96 (142)	3.02 (621)	sd
Outdated equipment	2.03 (142)	2.99 (624)	sd
Equipment Size/Weight	1.70 (141)	2.15 (616)	sd
Different Types of Equipment	1.80 (141)	2.41 (622)	sd
Operational Difficulty	1.65 (142)	2.11 (619)	sd

Numbers in parentheses indicate number of agencies that responded to questions with 1 or 2, etc.; sd = statistically significant difference between the two groups; nsd = no statistically significant difference between the two groups. Significance at .05 (95%) confidence level.

Comparison of agencies that consider limited funding a severe problem (rating of 4 or 5) with agencies that do not see funding as a major problem (rating of 1 or 2): Chi-square, 95 % confidence level			
	Limitations in Funding Not a Problem (1,2)	Limitations in Funding a Serious Problem (4,5)	Statistical Significance
Plan to replace/upgrade LMR within next ten years	75 yes / 70 no	376 yes / 248 no	nsd
Participate in joint training exercises	120 yes / 24 no	501 yes / 126 no	nsd
Have at least one radio channel solely designated for communicating with other organizations	118 yes / 28 no	494 yes / 133 no	nsd
Should there be state or federal mandates with date certain timelines to ensure interoperability	60 yes / 57 no	271 yes / 247 no	nsd

sd = statistically significant difference between the two groups; nsd = no statistically significant difference between the two groups. Significance at .05 (95%) confidence level.

Table I-5: Comparison of Agencies Using Different Frequency Bands

Comparison of agencies using particular frequency bands: Independent t-tests, 95% confidence level								
	Low Band VHF/ Not Low Band VHF		High Band VHF/ Not High Band VHF		UHF/Not UHF			
Ability of radio to handle three types of interoperability situations (where 1 = poor to 5 = excellent)								
Day-to-day	3.96 / 3.80	nsd	3.87 / 3.76	nsd	3.78 / 3.86	nsd		
Mutual aid	3.33 / 3.31	nsd	3.33 / 3.29	nsd	3.23 / 3.35	nsd		
Task force	2.46 / 2.49	nsd	2.47 / 2.52	nsd	2.33 / 2.54	sd		
Ability of agency to establish radio links with of public safety/service organizations (where 1 = poor to 5 = excellent)								
Local	4.19 / 4.13	nsd	4.14 / 4.15	nsd	4.14 / 4.14	nsd		
State	2.65 / 2.79	nsd	2.82 / 2.59	sd	2.63 / 2.81	nsd		
Federal	1.69 / 1.87	nsd	1.85 / 1.77	nsd	1.72 / 1.88	nsd		
Problems with land mobile radio system (where 1 = not a problem to 5 = major problem)								
Not enough channels	2.68 / 2.58	nsd	2.66 / 2.44	sd	2.79 / 2.53	sd		
Not enough talk groups	2.08 / 2.05	nsd	2.14 / 1.85	sd	2.21 / 2.00	sd		
Dead spots	3.38 / 3.23	nsd	3.30 / 3.16	nsd	3.21 / 3.29	nsd		
Fading	2.61 / 2.44	nsd	2.52 / 2.35	nsd	2.43 / 2.49	nsd		
Frequency Interference	2.86 / 2.67	nsd	2.84 / 2.36	sd	2.74 / 2.71	nsd		
Static	2.36 / 2.17	nsd	2.23 / 2.15	nsd	2.18 / 2.22	nsd		
Battery Problems	2.22 / 2.27	nsd	2.31 / 2.13	sd	2.34 / 2.23	nsd		
Not enough equipment	2.69 / 2.71	nsd	2.76 / 2.56	sd	2.57 / 2.76	nsd		
Outdated equipment	2.91 / 2.66	nsd	2.77 / 2.55	sd	2.69 / 2.72	nsd		
Equipment Size/Weight	2.11 / 2.00	nsd	2.03 / 2.00	nsd	1.99 / 2.04	nsd		
Different Types of Equipment	2.27 / 2.22	nsd	2.32 / 1.99	sd	2.27 / 2.22	nsd		
Operational Difficulty	2.02 / 1.98	nsd	2.02 / 1.91	nsd	1.99 / 1.99	nsd		
Obstacles to interoperability (where 1 = not a problem to 5 = major problem)								
Different bands	3.65 / 3.33	sd	3.39 / 3.43	nsd	3.60 / 3.33	sd		
Human and institutional limitations	2.83 / 2.80	nsd	2.82 / 2.75	nsd	2.91 / 2.76	nsd		
Different communication modes (analog vs. digital)	2.57 / 2.47	nsd	2.45 / 2.63	nsd	2.44 / 2.52	nsd		
Different communications modes (conventional vs. trunked)	2.74 / 2.79	nsd	2.75 / 2.86	nsd	2.81 / 2.77	nsd		
Different coverage areas	2.86 / 2.81	nsd	2.82 / 2.82	nsd	2.84 / 2.81	nsd		
Limitations of commercial services	2.44 / 2.27	nsd	2.28 / 2.36	nsd	2.19 / 2.35	nsd		
Lack of adequate planning	3.11 / 2.98	nsd	3.06 / 2.88	nsd	3.04 / 3.00	nsd		
Limitations in funding	3.91 / 3.87	nsd	3.93 / 3.73	sd	3.87 / 3.88	nsd		
Political/Turf issues	3.08 / 2.99	nsd	3.06 / 2.389	nsd	3.11 / 2.98	nsd		

sd = statistically significant difference between the two groups; nsd = no statistically significant difference between the two groups. Significance at .05 (95%) confid

Table I-6: Lack of Adequate Planning as a Severe Problem versus Lack of Planning Not a Problem

Comparison of agencies that consider lack of adequate planning a severe problem (rating of 4 or 5) with agencies that do not see lack of planning as a major problem (rating of 1 or 2): Independent t –test, 95 % confidence level			
	Lack of Adequate Planning Not a Problem (1,2)	Lack of Adequate Planning a Severe Problem (4,5)	Statistical Significance
Overall ability to handle interoperability situations (where 1 = poor to 5 = excellent)			
5 Years Ago	2.47 (310)	2.08 (329)	sd
Today	3.76 (313)	2.95 (330)	sd
5 Years From Now	4.10 (309)	3.28 (325)	sd
Ability of radio to handle three types of interoperability situations (where 1 = poor to 5 = excellent)			
Day-to-day	4.17 (304)	3.45 (324)	sd
Mutual aid	3.77 (304)	2.83 (322)	sd
Task force	3.01 (279)	1.99 (300)	sd
Ability of agency to establish links with different levels of public safety/service organizations (where 1 = poor to 5 = excellent)			
Local	4.42 (316)	3.88 (328)	sd
State	3.06 (296)	2.35 (316)	sd
Federal	2.12 (278)	1.54 (315)	sd

Numbers in parentheses indicate number of agencies that responded to questions with 1 or 2, etc.; sd = statistically significant difference between the two groups; nsd = no statistically significant difference between the two groups. Significance at .05 (95%) confidence level.

Comparison of agencies that consider lack of adequate planning a severe problem (rating of 4 or 5) with agencies that do not see lack of adequate planning a major problem (rating of 1 or 2): Chi-square, 95 % confidence level			
	Lack of Adequate Planning Not a Problem (1,2)	Lack of Adequate Planning a Serious Problem (4,5)	Statistical Significance
Plan to replace/upgrade LMR within next ten years	164 yes/ 145 no	202 yes / 120 no	sd
Participate in joint training exercises	269 yes / 40 no	241 yes / 86 no	sd
Have at least one radio channel solely designated for communicating with other organizations	258 yes / 53 no	252 yes / 76 no	nsd
Should there be state or federal mandates with date certain timelines to ensure interoperability	120 yes / 125 no	158 yes / 124 no	nsd

sd = statistically significant difference between the two groups; nsd = no statistically significant difference between the two groups. Significance at .05 (95%) confidence level.

Table I-7: Different Coverage Areas as an Obstacle versus Agencies Topography/Terrain

	Different Coverage Areas										Avg
	1		2		3		4		5		
	n	%	n	%	n	%	n	%	n	%	
Waterways	25	17.1%	34	23.3%	51	34.9%	20	13.7%	16	11.0%	2.78
Relatively flat	103	21.6%	101	21.2%	139	29.1%	90	18.9%	44	9.2%	2.73
Rolling hills	65	16.6%	87	22.2%	131	33.4%	64	16.3%	45	11.5%	2.84
Mountainous	21	15.3%	28	20.4%	43	31.4%	20	14.6%	25	18.2%	3.00
Heavily Forested	29	17.8%	31	19.0%	48	29.4%	27	16.6%	28	17.2%	2.96

Table I-8: Different Coverage Areas as an Obstacle versus Political or Turf Issues as an Obstacle

		Different Coverage Areas										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Political or Turf Issues	1	70	38.9%	30	16.7%	47	26.1%	19	10.6%	14	7.8%	2.32
	2	28	16.8%	58	34.7%	55	32.9%	17	10.2%	9	5.4%	2.53
	3	27	13.0%	43	20.8%	70	33.8%	40	19.3%	27	13.0%	2.99
	4	19	10.2%	42	22.6%	66	35.5%	49	26.3%	10	5.4%	2.94
	5	29	16.3%	22	12.4%	46	25.8%	36	20.2%	45	25.3%	3.26

Table I-9: Human and Institutional Limitations as an Obstacle versus Number of Local Agencies that Responding Agencies Communicate With (Only on Long Survey)

		Human and Institutional Limitations										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Number of Local Agencies	1-5	17	13.2%	30	23.3%	56	43.4%	15	11.6%	11	8.5%	2.79
	6-10	16	11.0%	31	21.2%	61	41.8%	26	17.8%	12	8.2%	2.91
	10-20	19	15.8%	25	20.8%	50	41.7%	16	13.3%	10	8.3%	2.78
	More than 20	13	13.5%	25	26.0%	32	33.3%	20	20.8%	6	6.3%	2.80

Table I-10: Human and Institutional Limitations as an Obstacle versus Number of State Agencies that Responding Agencies Communicate With (Only on Long Survey)

		Human and Institutional Limitations										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Number of State Agencies	1	16	16.7%	18	18.8%	44	45.8%	12	12.5%	6	6.3%	2.73
	2	10	10.4%	25	26.0%	41	42.7%	11	11.5%	9	9.4%	2.83
	3 or more	16	8.2%	42	21.4%	74	37.8%	46	23.5%	18	9.2%	3.04

Table I-11: Human and Institutional Limitations as an Obstacle versus Number of Federal Agencies that Responding Agencies Communicate With (Only on Long Survey)

		Human and Institutional Limitations										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Number of Federal Agencies	1	16	14.7%	25	22.9%	42	38.5%	20	18.3%	6	5.5%	2.77
	2	4	5.3%	16	21.3%	32	42.7%	14	18.7%	9	12.0%	3.11
	3 or more	9	8.7%	21	20.2%	40	38.5%	27	26.0%	7	6.7%	3.02

Table I-12: Human and Institutional Limitations as an Obstacle versus Agencies Communications Agreement

Communications Agreement	Human and Institutional Limitations										Avg
	1		2		3		4		5		
	n	%	n	%	n	%	n	%	n	%	
Independently Owned	30	15.2%	41	20.8%	77	39.1%	31	15.7%	18	9.1%	2.83
Communications Center Serving Multiple Agencies	65	14.8%	103	23.5%	166	37.8%	70	15.9%	35	8.0%	2.79
Multi-agency/Multi-jurisdictional Shared Center	29	12.9%	41	18.3%	107	47.8%	34	15.2%	13	5.8%	2.83
Other	7	14.3%	9	18.4%	19	38.8%	10	20.4%	4	8.2%	2.90

Table I-13: Support for State or Federal Mandates to Ensure Interoperability versus Type of Fire Department

		Yes		No	
		n	%	n	%
Type of Fire Department	Volunteer	139	44.6%	173	55.4%
	Career	118	59.0%	82	41.0%
	Combination	52	46.4%	60	53.6%

Table I-14: Ability to Handle Interoperability in the Future

		Overall Ability 5 Years from Now										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Agency Size	1-24	15	8.0%	16	8.5%	32	17.0%	55	29.3%	70	37.2%	3.79
	25-49	15	7.3%	22	10.7%	39	18.9%	75	36.4%	55	26.7%	3.65
	50-99	9	6.8%	11	8.3%	25	18.8%	47	35.3%	41	30.8%	3.75
	100-249	21	7.1%	29	9.8%	57	19.3%	89	30.1%	100	33.8%	3.74
	250+	10	7.8%	4	3.1%	25	19.4%	49	38.0%	41	31.8%	3.83
Agency Type	Fire Departments	62	8.1%	60	7.9%	139	18.2%	257	33.7%	244	32.0%	3.74
	EMS Departments	7	4.8%	20	13.7%	25	17.1%	45	30.8%	49	33.6%	3.75
	Special	1	2.3%	2	4.5%	14	31.8%	13	29.5%	14	31.8%	3.84

Table I-15: Ability to Handle Interoperability Situations 5 Years From Now versus Whether Agencies are Planning to Replace or Upgrade their LMR System

		Overall Ability 5 Years From Now										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Plan to Replace	Yes	39	7.3%	46	8.6%	89	16.6%	193	35.9%	170	31.7%	3.76
	No	30	7.5%	33	8.3%	83	20.8%	118	29.6%	135	33.8%	3.74

Table I-16: Ability to Handle Interoperability Situations Today versus Agencies Communications Agreement

Communications Agreement	Overall Ability Today										Avg
	1		2		3		4		5		
	n	%	n	%	n	%	n	%	n	%	
Independently Owned	18	8.7%	25	12.0%	76	36.5%	57	27.4%	32	15.4%	3.29
Communications Center Serving Multiple Agencies	32	6.9%	54	11.6%	140	30.1%	165	35.5%	74	15.9%	3.42
Multi-agency/ Multi-jurisdictional Shared Center	12	5.2%	29	12.7%	77	33.6%	71	31.0%	40	17.5%	3.43
Other	3	5.9%	10	19.6%	23	45.1%	10	19.6%	5	9.8%	3.08

Table I-17: Ability to Handle Interoperability Situations Today versus Participation in Joint Training

		Overall Ability Today										Avg
		1		2		3		4		5		
		n	%	n	%	n	%	n	%	n	%	
Participate in Joint Training	Yes	32	4.2%	95	12.6%	242	32.0%	255	33.7%	132	17.5%	3.48
	No	30	15.5%	23	11.9%	72	37.3%	48	24.9%	20	10.4%	3.03